



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/621,476

07/21/2000

Raynold M. Kahn

PD-200043

3684

20991

7590

05/24/2004

THE DIRECTV GROUP INC
PATENT DOCKET ADMINISTRATION RE/R11/A109
P O BOX 956
EL SEGUNDO, CA 90245-0956

EXAMINER

NGUYEN, MINH DIEU T

ART UNIT

PAPER NUMBER

2137

10

DATE MAILED: 05/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/621,476

Applicant(s)

KAHN ET AL.

Examiner

Minh Dieu Nguyen

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4-9.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

1. Claims 1-37 are currently pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-37** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wasilewski US 2001/0046299 in view of Colligan et al., US 6,415,031.

a) **As to claims 1-2, 16 and 23-26**, Wasilewski discloses a method and apparatus for protecting the transfer of data comprising the steps of receiving a data stream comprising the program material (Figure 2A, clear MPEG-2 program) encrypted according to a first encryption key (Figure 2A, element 201) and control data (Figure 2A, element 203), the control data comprising the first encryption key (Figure 2A, element 202) and being encrypted (Figure 2A, element 204) and encrypting the second encryption key according to a third encryption key to produce a fourth encryption key (Figure 2A, elements 205-207) and storing the further encrypted program material and control data and the fourth encryption key (page 4, paragraph 0062).

Wasilewski fails to disclose the steps of further encrypting the encrypted program material.

Colligan discloses a secure video distribution networks comprising a multiple layer encryption (col. 7, lines 38-54) and storing capability (col. 5, lines 11-16).

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the use of multiple level encryption and storing information for later retrieval, as Colligan teaches, in the system of Wasilewski so as to strengthen the security for the distribution of program material for subsequent replay.

b) **As to claims 3, 19-20 and 27**, Wasilewski discloses the method further comprising the steps of accepting a PPV request before decrypting the encrypting program material using the first encryption key and recording billing information regarding the program material (page 17, paragraph 0228-0229).

c) **As to claims 4 and 28**, Wasilewski discloses a cable television system providing conditional access to services comprising further encrypting the control data according to the second encryption key, storing the further encrypted control data and decrypting the further encrypted control data according to the second encryption key (Figure 2B).

d) **As to claims 5 and 29**, Wasilewski discloses the method further comprising the step of providing the program material to a presentation device (page 1, paragraph 0008).

e) **As to claims 6-7, 21 and 30-31**, Wasilewski discloses the method wherein the data stream is received in a receiver and the second and third keys are unique to the receiver (pages 3-4, paragraphs 0059-0060).

f) **As to claims 8-10 and 32-34**, Wasilewski discloses the method wherein the further encrypted program material, the control data and the third encryption key are stored on a disk drive device wherein the disk drive device is a hard disk drive or an optical disk drive (page 4, paragraph 0062).

g) **As to claims 11 and 35**, Wasilewski discloses the method wherein the data stream further comprising metadata describing program material replay rights (Figures 7, 18-19).

h) **As to claims 12-14 and 36**, Wasilewski discloses the method wherein the second encryption key is derived at least partially from the metadata (page 4, paragraph 0059); from the broadcast time of the program material (Fig. 3) and the method further comprising the step of augmenting the second encryption key with at least a portion of

the metadata before encrypting the second encryption key according to the third encryption key(Figs. 3, 19, 22).

i) **As to claims 15 and 37**, Wasilewski discloses the method further comprising the steps of retrieving the stored further encrypted program material, control data and the fourth encryption key; decrypting the fourth encryption key using the third encryption key to produce the second encryption key and the portion of the metadata; decrypting the further encrypted program material with the second encryption key to produce the encrypted program material; accepting a PPV request; determining if the PPV request is permitted using the portion of the metadata; and decrypting the control data to produce the first encryption key and decrypting the encrypted program material using the first encryption key if the PPV request is permitted (page 4, paragraph 0061; Fig. 3; page 7, paragraph 0097; page 9, paragraph 0126).

j) **As to claims 17-18**, Wasilewski discloses the apparatus further comprising a media storage device communicatively coupled to the first encryption module and the first decryption module, for storing and retrieving the further encrypted program material and the control data and the fourth encryption key (Figs. 12-14).

k) **As to claim 22**, the examiner takes official notice that use of single chip for performing encryption/decryption operations is quite well known in the data encryption art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the use of single chip for performing encryption/decryption operations in the system of Wasilewski and Colligan so as to make the reverse engineering much harder to do.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure

a) US 2003/0174844 to Candelore discloses method and apparatus for protecting the transfer of data.

b) US 6,466,671 to Maillard et al., discloses smart card for use with a receiver of encrypted broadcast signals and receiver.

c) US 2002/0048367 to Maillard discloses method and apparatus for recording of encrypted digital data.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Dieu Nguyen whose telephone number is 703-305-9727. The examiner can normally be reached on M-F 6:00-2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Morse can be reached on 703-308-4789. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Application/Control Number: 09/621,476
Art Unit: 2137

Page 7

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Minh Dieu Nguyen
Examiner
Art Unit 2137

mdn
mdn
5/17/04

Gregory Moore
GREGORY MOORE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100